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Testing the Plan

AGENCY INSIGHT

It pays to test your plans

In this issue of Insight, most articles open with dramatic descriptions of disasters. An earthquake strikes. A tornado touches down. A wildfire threatens a subdivision.

These articles aren't describing real life disasters. They are describing dramatic enactments—table top scenes with matchbox-size vehicles or full-scale simulations with special effects. Still everyone involved knows disaster can visit any business, community or even an entire region. We all need to be prepared. We need plans and we have to exercise those plans.

Exercises are a chance to practise our roles, test our equipment and uncover any weaknesses in our plans. The lessons learned during exercises save lives during real disasters. Without plans and exercises, we are truly vulnerable.

Municipalities should test their emergency response plans once every two or three years. In industry, companies also conduct regular exercises to train employees to handle emergencies. Every government and corporation is responsible for its own exercises, but recently both government and industry are discovering that it pays to plan and exercise together.

In "Blended Plans," Dave Worman, protective services director for the City of Fort Saskatchewan, shows how all stakeholders take part in the city's annual exercise. Don Campbell, in his article "Canada's Commitment to Respond," explains that CANATEX 2 was an umbrella plan. Under that umbrella, numerous organizations developed and exercised their own local plans. With the final exercise, local plans came together as one exercise. Ken Saulit, in "Sharing in the Solution," stresses the importance of inter-agency cooperation in dealing with wildfires. Fire and disaster agencies, planners, developers, educational institutes, the insurance industry, different orders of government and elected officials must work together.

Tornados, earthquakes, wildfires and industrial accidents know no bounds. Industrial accidents are community emergencies. Natural disasters and emergencies affect everyone, including the corporate citizens. It makes sense, therefore, to work together from the very start, developing integrated response systems that involve everyone—industry, government and emergency responders.

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AGENCY INSIGHT

Insight is published quarterly by Alberta Public Safety Services (APSS). The publication aims to inform readers about current developments concerning topics which relate to the mandate of APSS: to prepare for, respond to and recover from man-made or natural disasters in Alberta. This mandate includes activities in the areas of disaster services management, as well as the handling, offering and transporting of dangerous goods.

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Cover:
Insight recently travelled to Strome where a simulated explosion rocked the Strome Community Hall during a mutual aid exercise to test all emergency response plans for Strome, Killam and Daysland. Here a firefighter treats a high school student injured in the explosion.

Insight features pictures of this exercise throughout the issue. We thank "Exercise Strome" participants for allowing us shutter bugs to catch your work on film.

Photo Credit:Peggy Berndt

Alberta
PUBLIC SAFETY SERVICES

Keith Johnson

The Honourable Peter Trynchy, Minister Responsible for Alberta Public Safety Services, and Don Campbell, Assistant Regional Director of Emergency Preparedness Canada, tell the media why Alberta and Canada have teamed up to help British Columbia respond to a catastrophic earthquake.

The Minister's Point of View

Testing the plan: Practice makes perfect

Insight spoke with the Honourable Peter Trynchy, Minister Responsible for Alberta Public Safety Services, about the importance of exercising emergency plans on a regular basis.

Q Mr. Trynchy, what's the point of holding emergency exercises if they're not real events?

A I know first hand from my experience as a volunteer firefighter that a plan isn't worth the paper it's printed on if people don't know it inside out. The best way to really understand your plan is to get everyone involved and try it out.

An exercise shows you what works well, and what doesn't, so the plan and procedures can be fine tuned. Believe me, no one wants to learn these things under the tremendous stress of a real emergency.

So even though an exercise is a staged event, it unites the actual people who would respond and work together in a real emergency. An exercise is the closest thing you can get to real life, and can be surprisingly like the real thing. It's also important to remember that testing the plan is as important as making the plan. Practice really does make perfect, or at least makes you the best you can be.

Q Are municipalities required to hold exercises?

A No. There is no law that says municipalities must hold exercises. Past experience, however, has shown us time and time again that regular exercises really do make a difference.

A good example of the value of exercises was Peace River's extremely swift and effective response to the severe flooding there in 1992. Shortly before the flood occurred, the town held an exercise. When the real flood hit, everyone knew what to do, and over 3,000 people (almost 1/2 the total population) were safely evacuated, fed and housed without a hitch.

Q I've heard you talk about the three Ps of emergency preparedness. What do they stand for?

A The three Ps are: Prepare, Plan and Practise, and they're the foundation of effective emergency response. To prepare properly, everyone with a part to play in emergency response must have a say in developing the emergency plan. To make sure the plan works, you have to practise and hold exercises.

The whole process of emergency response does not stop when the plan is written. Exercises are also a crucial part of the emergency planning cycle.

Q How often should exercises be held?

A People in emergency planning and response have found that exercises have the most impact if they're held every two or three years. The most important thing is to run them on a regular basis to ensure new players are trained and to help keep the plan fresh in people's minds.

Q Are exercises expensive to run?

A They don't have to be. The biggest cost of exercises comes in term of all the time and effort spent in preparation. Since so many people are involved, it can add up to a lot of time, but it's time that can save lives and reduce the impact of an emergency.

Alberta, for example, recently spent only $7,000 on a national exercise with the federal government to test the country's readiness to respond to a catastrophic earthquake in B.C. By working together now to find the most efficient way to coordinate resources to B.C., our $7,000 investment will be repaid hundreds of times when the earthquake actually happens. Seismologists predict it could happen any time.

Q What are some of the lessons learned at an exercise?

A Actually, we don't so much learn new lessons at exercises as relearn ones we already know. No matter what the exercise, the same things keep cropping up, reminding us we have to keep trying harder.

One lesson that usually comes up is that communications between response agencies are always a problem.

Another thing we find is procedural changes have to be made in the way agencies interact. A good example is the question of who should be in charge at the site. The answer can vary from municipality to municipality, but a process has to be in place.

Quite often, exercises point out gaps or flaws that no one thought of before. You can't think of everything the first time.

CANATEX 2

Responding to the Big One

Dave Noble
Director, Plans and Operations,
APSS

The earthquake struck at 4:45 pm B.C. time, at the height of the afternoon rush. It left commuters stranded and 100,000 people homeless. Thousands were dead and tens of thousands injured.

On the B.C. lower mainland and southern Vancouver Island, the earthquake destroyed virtually every major highway, bridge and overpass. Vancouver International Airport, as well as three major Vancouver hospitals, were damaged beyond use. Other hospitals in the area were operating at 50 per cent capability.

This was the scenario for CANATEX 2, the largest civil exercise ever held in Canada. Alberta, B.C. and Emergency Preparedness Canada developed CANATEX, (short for Canadian National Exercise). Seismologists predict a major earthquake could strike the west coast of B.C. any time. CANATEX 2 was a chance to test national and provincial plans and find out how effectively we could respond to a catastrophic earthquake in B.C.

CANATEX 2 tested the *National Earthquake Support Plan,* prepared by Emergency Preparedness Canada. It also tested B.C.'s *British Columbia Earthquake Response Plan* and Alberta's plan, the *Alberta Support Plan,* developed by APSS and the Alberta regional office of Emergency Preparedness Canada.

The exercise

The exercise ran from May 2 to 13. The earthquake, which began the exercise, measured 8.5 on the Richter scale, making it far worse than the recent 6.6 Richter California quake. As the Richter scale is logarithmic, the simulated B.C. earthquake was hundreds of times more powerful than the California quake.

The earthquake disrupted telecommunications and broadcast facilities. It destroyed water, power, natural gas and sewage systems. Richmond, Delta and other low-lying areas were under water. The Roberts Bank coal terminal disappeared into the ocean. All major B.C. ferry terminals were destroyed or unusable, leaving four large B.C. ferries, with up to 4,000 passengers and limited supplies, stranded at sea.

The Alberta response

Alberta participated in CANATEX 2 from May 2 to 6. Almost 90 people gathered in the Alberta Public Safety Services (APSS) Government Emergency Operations Centre, ready to respond to B.C.'s requests for assistance. In December 1993, the *Alberta Support Plan* had survived a five-hour test, Exercise Wild Rose. So, for Alberta participants, this was round two, and most were well prepared.

The Alberta plan operates on a framework of resource groups. Each group has a special function, for example, Supply and Services, Telecommunications and Human Resources. Each group has representatives from different levels of government and from non-government organizations. With this unique design, requests can be passed to the right group. Inside the group, representatives with the appropriate expertise are ready and able to respond.

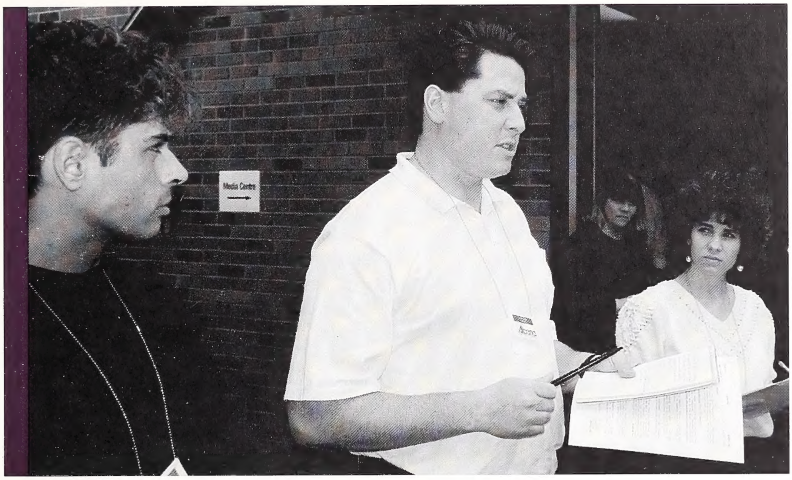
To start the exercise, APSS operations staff began a call-down to all the

Standing By

If an earthquake did strike the B.C. coast, we would learn about it from several sources including University of Alberta seismologists and Transport Canada. Aircraft about to land at Vancouver's airport would radio Transport Canada, as would ships about to enter Vancouver's harbor.

In the event of a major earthquake, B.C. would rely on the rest of the nation, including its neighbor, Alberta. Here is a list of some materials and specialists B.C. might need:

Water
Photogrametrists
Portable lighting equipment
Radiologists
Radiation safety specialists and equipment
Rail cars
Remote sensing-air photo services
Road equipment and machinery
Rubberized membrane
Refrigerator equipment
Animal control officers
Ambulance equipment
Ambulance operators
Amateur radio operators
Aircraft
Aircraft servicing
Engineers
Batteries
Buses
Blasting equipment and personnel
Bridging equipment
Body bags
Tents



Bill Rodger

Left to right: Journalism students Paul Napora, Jeff Ligtvoet (NAIT) and Diana Hastman (Grant MacEwan) press for answers during a simulated news conference held during CANATEX 2.

Media provide an invaluable link to the public when responding to a major emergency.

Alberta agencies that would respond. This included about 20 provincial departments and about 10 federal departments. It also included the cities of Edmonton and Calgary and several non-governmental agencies, such as the Canadian Red Cross and amateur radio operators.

By the morning of Wednesday, May 4, the people gathered in the Operations Centre were organized into their resource groups. Each group was ready to respond to any requests from B.C. They received calls for everything from food, water and medical supplies to structural engineers (needed to test buildings for safety) and battery-operated am-fm radios (needed to restore communications).

To answer the request for radios, the Supply and Services group checked government supplies then turned to private suppliers. The Human Resources group had the task of locating structural engineers. Within the group, representatives from Alberta Advanced Education and Career Development and from Human Resources and Development Canada tapped data bases for names and telephone numbers. Transport Canada and Alberta Transportation and Utilities representatives also searched their data bases for lists of engineers experienced in road, bridge and airport construction.

A Public and Media Inquiry Room handled calls from the public and the media. Communications staff from the Alberta Public Affairs Bureau and regional offices of the federal government manned the telephones. A close link with the operations staff guaranteed that telephone operators sent out consistent messages. During a series of mock media conferences, NAIT and Grant MacEwan Community College journalism students grilled various operations staff. (There was also one real media conference attended by APSS Minister Peter Trynchy.)

Testing the plan

During CANATEX 2, the response team received fewer calls for help than it expected, probably because this was an artificial exercise. Nevertheless, there were enough requests to test the plan and its procedures.

The exercise identified one major area not included in the plan. The response plan must include a human resources deployment plan. Volunteers, specialists and salaried relief workers must be ready for deployment to B.C. How will they be paid, compensated, insured and certified to work in B.C? What equipment and personal supplies should they take? How can they be contacted in B.C., and conversely how can they contact their families and employers in Alberta? APSS has identified government agencies with a role in this area and will be encouraging a national initiative to address this area.

Beyond this, the Support Plan has proven an excellent platform for coordinating Alberta's response to a catastrophic earthquake in B.C. In fact, the plan is an excellent framework for a response to any catastrophe with national implications.

As soon as the post-exercise analysis is complete, APSS will review and revise the plan as necessary, and publish it in a final format. We are comfortable that this plan will enable Alberta to continue its role of good neighbor to other Canadians.

Canada's commitment to respond

Don Campbell
Assistant Regional Director,
Emergency Preparedness Canada

The threat of a catastrophic earthquake centred off the west coast – and the Government of Canada's commitment to respond – provided the impetus for CANATEX 2. Part art, part speculation and equal parts sober analysis and craftsmanship, CANATEX 2 was the second in a series of national exercises. CANATEX 1, held in 1990, involved only the federal government.

Sponsored by the David Collinette, Minister Responsible for Emergency Preparedness, and coordinated by Emergency Preparedness Canada, CANATEX 2 fulfilled requirements of Section 7 of the *Emergency Preparedness Act*. The Act requires federal ministers to prepare and exercise civil emergency plans within their respective areas of responsibility. However, CANATEX 2 took this basic requirement one step further. It involved other jurisdictions and became an umbrella under which many jurisdictions could test their plans.

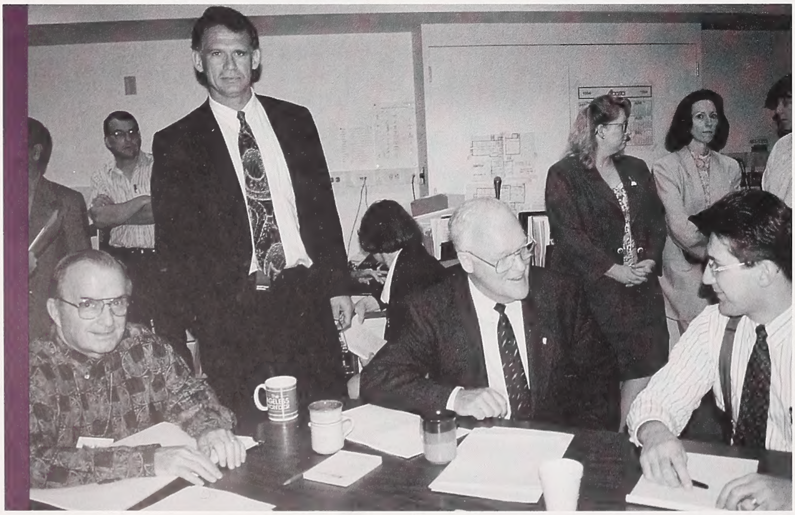
As early as possible, organizations began training and exercising their plans. This allowed them to start forecasting activities, preparing background material and presenting seminars. In this way, even if the exercise had not occurred, a level of preparedness would have taken place. In Alberta, developmental workshops tested the plan concepts. Training familiarized individuals with their responsibilities. Alberta also held a full-scale exercise, Exercise Wild Rose.

In B.C., a similar train of events saw the development of the *Federal Support Team*. The team provided a focus for federal activities in the area. It also created a window of contact so support could flow from the federal government to the government of B.C. The events culminated in pre-CANATEX 2 exercises, including exercise Thunderbird 1, the first test of the B.C. Earthquake Response Plan.

During the exercise development, respective plans proceeded apace. Thus, lessons from CANATEX 2 represented a dynamic planning process, not a static concept. Vital emergency plans are living documents which reflect the current state of readiness and capability. CANATEX 2 was conducted during regular office hours and involved little movement of resources. While some specific travel and telecommunications costs were necessary, the federal exercise cost was in the range of $20,000. The exercise design, conduct and control structures were developed and administered entirely from within the resources of the organizations involved.

Now that CANATEX 2 has reached its conclusion, we have the luxury of contemplation. We begin to look past the hurly burly of our simulated roles during the active phase of the exercise. We begin to formulate thoughtful opinions, to evaluate policies and procedures and to distill the best practices to further improve our plans. It is widely recognized that exercising plans brings them to life, revealing good qualities and areas requiring improvement. When the planning arena is national in scope, coordinating the activities of many discrete component plans becomes a dynamic challenge. Many of the planning assumptions which were once valid are subject to change.

In this respect, national exercises set milestones, providing tangible assessments amidst the flux. They allow us to measure the blended capacity of the nation to protect Canadians from the effect of disasters, no matter where and how severe. Preparing for an exercise serves to focus planning efforts and tells us where we are now. Albertans and the rest of Canada can be proud of the readiness to serve which was demonstrated during CANATEX 2. We have a clearer picture of the work ahead and the motivation to achieve an even higher standard for the challenges which will follow.



Bill Rodger

Left to right: Peter Russell, Dave Noble, Ron Wolsey and Don Campbell prepare for the final CANATEX 2 debriefing.

Grahame Blundell retires

Good food, good wine, good friends and a lot of laughs sent Grahame Blundell, APSS's director of communications and managing editor of Insight, into retirement. Over 90 people representing Grahame's family, friends and co-workers filled the University of Alberta Faculty Club March 31, 1994, to give Grahame their best wishes and bid him a fond farewell.

Grahame and his wife, Lisbet, will spend the summer touring Europe before Grahame continues to work part time as a risk communications and sales consultant. Good luck and happy retirement Grahame!

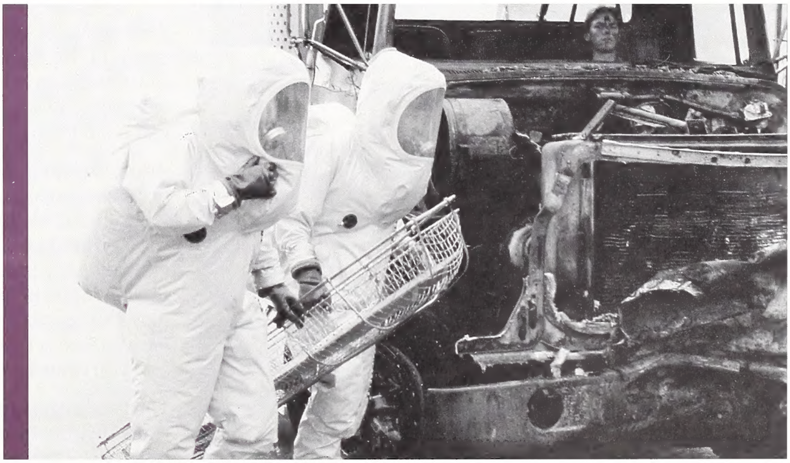
APSS welcomes Cheryl Edwards, former editor of Insight, as the new Director of Communications for APSS.

Keith Johnson

Left to right: Lisbet Blundell, Mark Egener and Grahame Blundell share a laugh at Grahame's retirement luncheon.

Industry exercises pay dividends

Paul A. Riopel
President, Emergency Response Management Consulting



Emmett McGregor

An exercise at a fertilizer plant gives first responders the skills needed to work with hazardous substances.

You walk out of the control room to the shriek of escaping high-pressure gas. Through clouds of smoke, you see your co-workers prostrate on the ground. Gasping for air, an operator frantically tugs at your sleeve and screams, "Harry's still in there and we've got to get him out! The unit's out of control."

The company has given you all kinds of training. It has even taught you first aid, shown you how to handle a fire extinguisher and all about the alarm system. But it hasn't taught you what to do when your neat, orderly world suddenly comes crashing down.

Of course, this is an exercise. Chances are your company has conducted such an exercise to see how employees would handle an emergency. But there are problems with exercising an emergency plan this way, especially if it's the only one your company does the entire year.

In today's world of the lean corporation, you must be able to show the benefits of any activity, not just drills. And exercises that put employees through a traumatic experience may make them feel they have failed miserably. These exercises test people – not systems and plans.

The sound, fury and action of a field simulation make it difficult to focus on anything beyond first response. These exercises are short. They need to be. It is hard to realistically simulate intense physical pain, fire or product release for any length of time. And first responders, who practise their skills more often than anyone else in the company, don't need to spend a lot of time practising the same skills during a drill.

Exercises must provide learning opportunities. They must motivate

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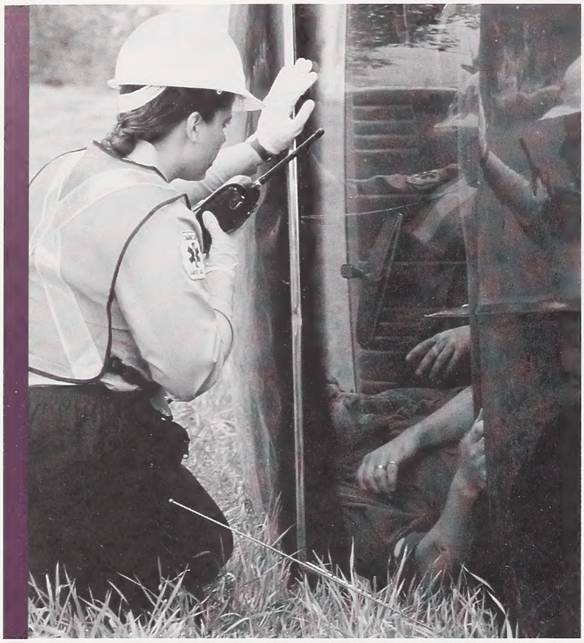


Emmett McGregor

Co-operation between municipal and industrial responders played a key role in this exercise to test the Sturgeon area mutual aid plan.

continued from page 7

and educate. They must test your emergency response plan and identify how the company can improve that plan.

There are a variety of exercise types. Each tests a different aspect of emergency response. Each has specific goals. For example, exercises may test communications, public affairs, search and rescue, evacuation procedures and so on.

Start by identifying your goals then choose an appropriate exercise. The following list shows some fairly standard exercises your company can do. These aren't the only options available. The only real limitation is your imagination.

The safety meeting exercise

During a regularly scheduled safety meeting, discuss potential emergencies and what to do about them. This can give valuable insight into how well your system will work. Your meeting doesn't have to last more than 20 minutes.

Table top exercise

A more formal exercise. Ask participants to schedule about two hours for the exercise. An exercise leader sets out the problem. A prepared set of questions promotes discussion in the areas you wish to test. Scenarios can address any level of the organization, from operator to senior management.

Command post exercise

If your company has an emergency operations centre, this exercise lets you put the centre through its paces. This is a more complicated exercise. Planning and executing the exercise requires more resources. Command Post (CP) staff take their emergency work stations. The CP receives information, simulating an actual incident. Each person must perform the duties assigned to him or her, as described in the company's emergency response plan.

Full-scale simulation

This exercise is the one most people think of when they talk about exercises. A lot of time and effort goes into planning and executing these exercises. All elements of the emergency response system can participate. Provided you have worked up to it with smaller exercises, the simulation is a great way to showcase your organization's abilities.

Other variations

There are several other special-purpose exercises. Some examples are: communications, evacuation, emergency shutdown, public affairs, environmental emergencies, bomb threats and search and rescue, to name a few.

Exercises are a vital part of the overall emergency preparedness program. No matter what type of exercise you conduct, you must plan around operational priorities. Very few companies are willing to shut down a process area or pipeline for an extended length of time to conduct an exercise.

At some point, you have to go public with your emergency response program. No one can deal with a major emergency without outside help. Ultimately, your exercise program should involve outside agencies, including the municipality in which you operate. For operators of linear facilities, such as pipelines and railroads, this presents a unique challenge, as different jurisdictions do business in different ways. The bottom line is that the municipalities are the local authority and you must learn to work with them.

The final step is the post exercise follow-up. Exercises can generate impressive lists of ways to improve the emergency response plan. However, a company flounders when it does nothing with the list. There may be very good reasons not to act. But those waiting for change see the company's promise to improve the system as nothing more than lip service. Your company must be ready to act on the decisions and make the changes identified in the exercise.

Any way you cut it, exercises pay dividends. They validate your plans, educate and motivate your people and develop confidence in your ability to handle emergencies. That confidence translates into better work force morale and improved productivity. Lessons are better learned during an exercise than in the crucible of painful experience. Exercise your plan and hope you never have to learn if it actually works in a real situation.

Blending plans in Fort Saskatchewan

Dave Worman
Protective Services Director,
City of Fort Saskatchewan

Fort Saskatchewan will hold its annual emergency exercise on October 12, 1994. The scenario will be a tornado impacting on multiple sites. Fort Saskatchewan will evacuate its schools and seniors lodges. The City will set up reception areas and activate its emergency operations centre.

With any emergency preparedness program, testing the emergency response plan is key. During its exercises, Fort Saskatchewan tries to challenge every part of its plan. Fire, police and ambulance usually take part in emergency exercises. As well, Fort Saskatchewan works hard to include other vital services. Disaster social services, public works, emergency public information, emergency transportation, emergency communications and emergency medical teams all activate their individual plans.

The hospital, schools, seniors lodges, local businesses, industrial facilities and the mutual aid program (Fort M.A.P.) also take part in the exercises. As a result, the emergency plans are blending and, in some cases, becoming one unified plan. In Fort Saskatchewan, all partners are so committed to a mutual program, these programs are now expanding into a much larger region to include parts of Strathcona County, the MD of Sturgeon, the County of Lamont, and the City of Fort Saskatchewan. This new organization will include approximately 60 members representing all industrial facilities and municipalities in the region.

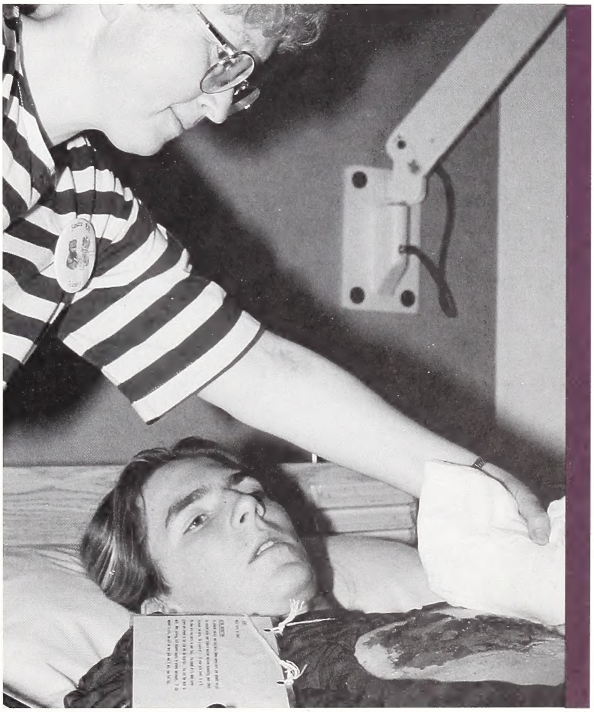
During Fort Saskatchewan's annual exercise this October, players will have access to the City's public warning system and to the Edmonton Region Emergency Public Warning System. They will also access networking initiatives with national and provincial resources such as the Canada Chemical Producers' Association (CCPA), Community Awareness and Emergency Response (CAER), TransCAER, Alberta Public Safety Services and the Major Industrial Accidents Council of Canada (MIACC), which supplement emergency planning in Fort Saskatchewan.

Fire companies and four different ambulance services will deal with the multiple simulated fires and over 25 casualties. Fort Saskatchewan will invite the media. Disaster social services will set up food, clothing, shelter, registration and inquiry services. It will also provide special needs services for the evacuated seniors and students.

Fire suppression, search and rescue, triage and emergency transport, media relations and public information plans will all be tested. The exercise will also try out public warning plans and plans to transport the approximately 500 evacuees. Service problems at multiple sites will challenge all utility companies, including natural gas, electricity, water, sanitation and telephone.

The local amateur radio club emergency plan will be exercised, as ham operators will provide alternative communications. About 25 club members with handheld radios will transmit from various community sites back to their base station in the city's emergency operations centre. Search and rescue efforts will transport over 25 casualties from the Fort Mall site to the hospital. As hospital staff receive and process the casualties, the hospital will test its plan.

Emergency public works will be hard pressed to deal with the many requests for barricading, traffic control and heavy equipment. Meanwhile, security services will be stretched to their limit at the emergency operations centre, the hospital, the media centre, businesses and institutions impacted by the simulated tornado. If you wish to participate in the exercise as an evaluator, safety officer or observer, please call Tammy at 992-6235.



Cheryl Edwards

Casualties dressed with wounds test triage and add a sense of realism to an exercise. Here a burn victim receives treatment at the Daysland Hospital.

Simple and cost effective

Table top exercises work well for communities

Russ Kowtun
St. Paul District Officer, APSS

It is mid-morning on a clear winter day. A freight train has collided with a semi-trailer tank unit at a highway railway crossing. Along with the normal freight on board, two railway tank cars contain aviation fuel and anhydrous ammonia. Both are overturned, ruptured and leaking.

Ahead of the train is the twisted wreck of the semi-trailer tank. On impact, the tank has burst and drenched the scene with hydrochloric acid. Three of the four-man train crew are injured. The truck driver is unconscious and trapped in the wreckage.

This crash scene is part of a table top exercise, a unique style of table top exercise used throughout the St. Paul District. The scene is laid out on a table on an enlarged area map. Props simulate the railway cars, tank truck, fire trucks, rescue vehicle, police cars and ambulance units. However, unlike most table top exercises, the entire exercise does not stay around the table top. The table top acts as an operations centre, while the command post is at another location, away from the operations centre. Since the operations centre and command post must communicate, the town can test its communications equipment and procedures, while practising emergency response roles.

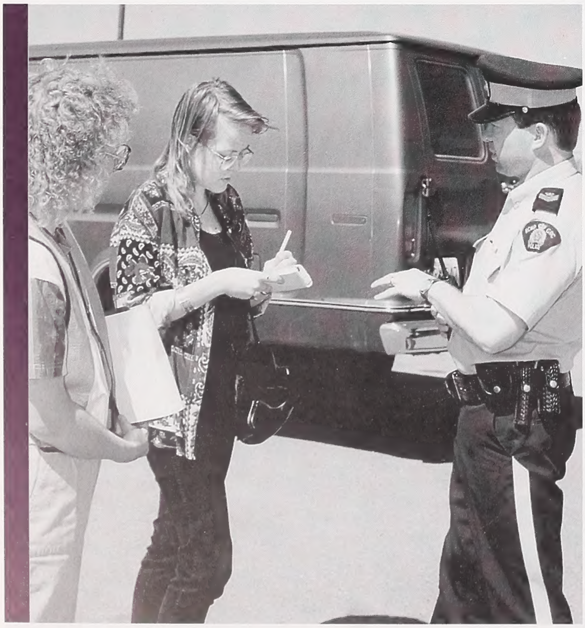
To start the exercise, the village volunteer fire department arrives at the accident scene. The fire department radios the RCMP and ambulance services. It also advises the county director of disaster services. The command post is set up and an emergency site manager is appointed.

Quickly, emergency operations personnel report to the county emergency operations centre. Within minutes, they are ready to provide support for the emergency site operations. Communications are established.

At the scene, emergency services discover they need help from the railway and chemical manufacturer. Two teams representing their services arrive on scene. Additional fire and rescue, police and ambulance services are needed. All available emergency resources are now fully engaged.

This style of exercise is simple and cost effective. The objective is to make the exercise as realistic as possible without adding unnecessary expenses. There are no expensive special effects. Since it takes place during working hours, there are no expensive add-ons, like overtime.

Participants learn by practising their roles. They are exposed to emergency plans and procedures, some for the first time. Each town has limited resources. The exercise shows the towns what resources they have. As they activate their emergency response plans, towns also learn how to use their resources during an emergency.



Peggy Berndt

Sgt. Skappak from the RCMP Killam Detachment updates reporter Alison Leithead of the Sedgewick Community Press in "Exercise Strome."

Prepare for
the media...
they WILL
be there

Unique exercise prepares town for a real twister

Exercises can be expensive and time-consuming, particularly for small municipalities. In these cases, a bit of creativity can go a long way, as several communities in the St. Paul District have discovered.

These communities came up with the idea of holding a table top exercise with a difference by adding an emergency command post. This unique form of exercise combines the low-cost benefit of table top exercises with the realism of larger-scale ones.

In the Town of Smoky Lake, this unusual kind of exercise did more than test communications plans, equipment and procedures in more depth. The town's simulated disaster ended up being a dry run for the real thing just a few months later.

At 2 a.m. on July 29, 1993, a real tornado ripped down Highway 28 through Smoky Lake, tearing the roof off the Sportsmen Motor Inn. Luckily, no one was killed.

With the recent exercise fresh in their minds, Smoky Lake's emergency responders were ready for the cleanup. They'd had a chance to make changes and iron out the bugs in the ever-present problem areas like communications. Staff in the town office knew how to handle the onslaught of calls from residents and the media.

"Everyone knew their roles," says Harvey Prockiw, the town's director of disaster services. "When the calls started coming in, our communications staff knew what they should be doing."

Wildfires in urban areas

Sharing in the solution

Ken Saulit
Manager, Fire and Disaster Services, County of Parkland #31

It was a hot afternoon in May when a resident from a rural subdivision called the Canmore Fire Department. Children playing with matches had started a grass fire. The fire was spreading toward the trees.

When the fire department arrived, the fire had crowned in the spruce trees and engulfed one house. The fire department called neighboring fire departments and the Alberta Forest Service, asking for mutual aid. Rural pumpers quickly ran out of water and headed back to town to refill. Enroute they were trapped by a motor vehicle accident and traffic congestion at the entrance to the subdivision.

The fire advanced rapidly from residence to residence. It was threatening neighboring subdivisions, home to 1,500 residents. The subdivisions had an assessed value of $95,000,000.00.

The town of Canmore set up an emergency operations centre in the town office. The Mayor declared a State of Emergency, under the *Public Safety Services Act.* Media converged on the site to watch 11 different municipal, provincial and federal response agencies battle this disaster. Despite the best efforts of these professionals, many lives were lost and many homes destroyed.

Recently, the Partners in Protection Association conducted this table top disaster exercise at the Forest Technology School. The exercise introduced municipal disaster planning and response concepts to senior forestry personnel attending the Advanced Fire Behaviour course. Many participants said they never realized so many players were involved in a disaster response, and that, ultimately, the municipality is responsible for response activities. Others commented on the importance of inter-agency cooperation and good communications.

Partners in Protection is an Alberta group that has banded together to address the potential for fire disaster within the wildland/urban interface. This group recognizes the need to coordinate and plan prevention and suppression services. It has identified seven areas that need to be addressed:

1. Education

People must be aware of the hazards and risks and what they as homeowners can do to protect their homes from wildfire.

continued on page 12

continued from page 11

Margaret Thibault, Mayorthorpe Freelancer

Bruce LaBoucane, a member of the Mayorthorpe Volunteer Fire Department, battles an out-of-control grassfire on an acreage north of Mayorthorpe before it reaches the town.

2. Planning

The land use planning process must address fire and other catastrophes in the interface area. Planners must design access roads with emergency response in mind and give thought to adequate water supplies for firefighting.

3. Legislation

Elected officials can enact legal and regulatory strategies that reduce the risk of fire in the wildland/urban interface.

4. Development

Early in the planning phase, developers should contact the agency responsible for fire protection in the area. Contractors should use non-combustible building materials wherever possible.

5. Fuels management

Homeowners can greatly reduce the threat of severe wildfire by thinning, pruning, moving and otherwise managing their forested surroundings.

6. Training

There is a real need to develop cross-training programs for municipal and provincial emergency and disaster response agencies. Everyone should understand each other's limitations.

7. Inter-agency cooperation

For all this to work, we need inter-agency cooperation. We need to have predetermined mutual aid agreements, compatible equipment and integrated communications. A common incident command system is crucial to providing a coordinated and efficient emergency response.

Lives and property were lost during the table top disaster exercise because of the lack of inter-agency cooperation. Each response agency professionally did its job, but there was no overall coordination. Forestry personnel were unaware of legislated municipal requirements. Communication equipment wasn't compatible. Each response agency operated independently under various adaptations of emergency site management.

However, through a coordinated effort involving fire and disaster agencies, planners, developers, educational institutes, the insurance industry, different levels of government and our elected officials, we CAN work together for safer communities in the wildland/urban interface.

Wildfire...
It can happen here.

PARTNERS IN PROTECTION

One has only to follow the evening news to be aware of the potential for tragedy caused by wildfire. When natural environments and urban forms of development are brought into close interaction, the potential for danger increases. This area of interaction - the wildland/urban interface - can include everything from homes and cottages in wooded areas to hinterland industrial developments and urban parklands and natural areas.

In California, Australia or Alberta, the threat of wildfire in wildland/urban interface areas is increasing. No one is immune.

Be a part of the solution. Attend *Sharing Solutions* October 2 - 5, 1994 in Kananaskis, Alberta, Canada. Experts from around the world will:

- promote ways to enhance fire education and awareness;
- outline opportunities to increase safe residential planning and development; and share the latest fire suppression techniques for combating wildland/urban interface fires.

To receive a conference information package and registration form call Lolita Moser at (403) 451-7152. In Alberta, to be connected toll-free dial 310-0000.

Sharing Solutions October 2-5, 1994
Kananaskis, Alberta, Canada

VIEW POINT

Citizens: Curb your burning urge

Viewpoint gives you, the reader, a soapbox to stand on and air your views. Start a debate: send your beefs and bouquets to Viewpoint, in care of Insight's managing editor. Views expressed here do not necessarily reflect those of Alberta Public Safety Services.

Editor's Note:

Californians are painfully aware of the effects of wildfires in urban areas. Albertans, at least most of them, are not.

Few people in the province realize that wildfires, like the ones which recently destroyed so many homes in California, could happen here, in our own backyard. With increasing development in our wildland areas, the potential for disaster exists. Take a look at Jasper, Hinton, Edson, Bragg Creek, the Bow Valley, the County of Parkland, Strathcona County, or even Edmonton's river valley and you'll see many places where wildfires could sweep through urban areas.

The big difficulty with the issue of wildland fires spreading into developed or urban areas, including acreages, is that few people recognize it is a problem. We haven't had a major wildland/urban fire in Alberta to raise our consciousness. A case in point: a recent workshop on the issue in Edmonton had to be cancelled due to lack of interest.

That workshop, scheduled for early June, was a joint project between Alberta Public Safety Services and Partners in Protection, a diverse group of stakeholders who are working together on what is a complex wildland/urban and multi-faceted fire issue.

The seminar, even though it never happened, sparked at least one good result. This issue's viewpoint, from the Parkland Residents Association, discusses that result in more detail.

Steve Cherwonick, President
Parkland Residents Association

At the last meeting of the Parkland Residents Association, the board of directors entered into a long discussion concerning burning in multi-parcel subdivisions. This discussion was triggered by the notice of the seminar to be held on June 2, 1994, about the wildland/urban interface: the threat of wildfire and the proliferation and increasing danger of wildfires.

The majority of association members reside in rural areas, and the threat of fire is a constant worry. We, as most urban Albertans, have a fear of wildfire or any fire that could get out of control. As a result of our feelings and in consideration of your efforts, the board passed the following resolution:

Moved by Don Cramer that PRA send a letter recommending the County of Parkland ban all burning except in approved burning receptacles in multi-parcel subdivisions between April 1 and November 15. Seconded by Lewis Schoepp. Carried.

We feel that burning restrictions are far too lenient in most jurisdictions within the province, and some concerted effort should be raised to curb the burning urge among our citizens. All too frequently we see the shores around small lakes or sloughs burned over, whether by intent or accident, with extensive loss to wildlife and their habitat. Usually the burn happens just after the waterfowl have decided on nesting sites and have laid their eggs in preparation for incubation.

We as an association support your efforts and wish you every success in the future. Should you anticipate holding another seminar please contact us for either input or attendance.

New Industry Regulation

To meet the need for a standard approach to emergency planning for industrial sites, a new Emergency Planning for Hazardous Sites Regulation is being proposed for Alberta. The proposed Regulation, which would guide industry in the preparation of emergency plans may become authority under the *Public Safety Services Act* shortly.

Before the Regulation can be taken to Legislative Counsel for final drafting, Alberta Public Safety Services must wait for approval in principal from MIACC-A; a multi-stakeholder group in Alberta representing industry and government.

There are many Acts and Regulations which currently ask for an emergency plan. The requirements often duplicate or overlap one another for some industries, and ignore or miss others. There is as well no common standard or requirement for these emergency plans.

The proposed Regulation will ensure there is co-ordination between industry and local authorities. It is not intended to introduce new requirements for industrial emergency planning activities, but to lay down a common standard for all such plans.

To receive more information or a copy of the current draft, call Plans and Operations, APSS at (403) 451-7152. In Alberta to be connected toll-free dial 310-0000.

Do's and don'ts

Tips for running effective mass casualty exercises

John Robinson
Director, Disaster Health and Social Programs, APSS

Over the past nine years, APSS's Disaster Health and Social Programs Branch has helped coordinate about 250 mock disaster exercises. Mass Casualty Response Exercises are an excellent way to test a community's ability to respond to disasters. Typically, they involve many agencies, including the health care facility, ambulance, fire, police, municipal staff, industry and many volunteers.

Disaster Health and Social Programs has taken part in many successful exercises and, unfortunately, several unsuccessful ones. Planning an exercise can take up to one year. Participating agencies invest considerable time and money. So poorly conducted exercises undo positive results and diminish enthusiasm for further exercises.

The following list of **Do's** and **Don'ts** should help you conduct a successful full-scale disaster exercise.

Planning the exercise

Do start planning well in advance.

Do set clear objectives. Full-scale exercises can be expensive and time consuming. Make sure the exercise actually achieves what you want it to achieve.

Do get participating agencies involved in setting objectives. To get a return on their investment, players must determine what they want and be committed to the objectives.

Do let participants know the scope of the exercise and when it will take place. This allows agencies to budget for the exercise and commit the necessary resources.

Do set up an exercise planning group. This group should include people responsible for key areas, including an exercise controller, safety, evaluation and exercise scripts. Planning a full-scale exercise is beyond the capacity of any one individual.

Do select an exercise code name and make sure the code is used in initial exercise communications.

Do select a code that will stop the exercise during its conduct and identify any volunteer who becomes a real casualty.

Don't plan a surprise exercise unless the main goal is to test response times. Surprise exercises can anger participants, impose needless stress and negate the learning experience. Someone could be injured or killed rushing to respond to the surprise.

Don't plan to show the responders "what it's really like." Most already know.

Don't plan to overwhelm the community's response resources. The agencies already know how limited their resources are.

Setting a scenario

Do base your scenario on community risk analysis. If the planned event is likely to happen, the training may be invaluable.

Do select an alternate indoor scenario, in case mother nature doesn't cooperate on the exercise day.

Do make the site look realistic.

Don't select a remote area for a mass casualty exercise. Transportation to and from the site will prolong the exercise.

Don't select a scenario that will cause large-scale disruption for the community. Life must go on, even during an exercise.

Don't plan a scenario hazardous to volunteers or responders.

Don't include a hazardous goods element in a mass casualty incident. Dealing with hazardous goods prolongs the rescue. Response teams may handle the hazardous goods incident well. However, with the delays, there may be a perception that most casualties have expired. This type of criticism of Ambulance Services is unwarranted.

Conducting the exercise

Do your utmost to start the exercise at the specified time.

Do give enough information, with the initial call to start the exercise.

Do make sure a safety officer is in place before the exercise starts.

Do give the necessary information so the first responders can respond appropriately.

Do make sure the observers are in a specified area.

Don't include smoke generation in confined areas. No matter how non-allergenic the product is, someone will be allergic to it. Thick smoke also prevents taking pictures and videos. All you will see is smoke. If a fire is staged near the accident, it is almost guaranteed that the wind direction will change before the smoke clears.

Don't introduce events that complicate the response. During the exercise, enough will go wrong naturally.

Don't allow hysterical casualties, or their relatives, to be uncontrolled, destructive or combative.

Don't allow any obvious errors in the response to continue. To make the exercise a positive learning experience, help responders and prevent them from looking bad.

Don't allow the exercise to take too long. A long exercise may drain enthusiasm and negate the exercise's positive benefits.

Evaluating the exercise

Do make sure evaluators are clearly identified and know exactly what they are to evaluate. They should know the parts of the plan they are to evaluate and should have enough technical knowledge to make a positive evaluation.

Do instruct evaluators to ask responders why they responded as they did. Their actions may have looked wrong but may have been entirely appropriate.

Do conduct a controlled operational debriefing at the end of the exercise. Invite all participating agencies.

Do encourage each response agency to conduct internal critiques.

Don't allow criticism to be publicly directed at individual responders.

Don't make recommendations for changes to the plan unless the problems are clearly problems and the solutions enforceable.

Don't forget to publicly acknowledge the responders and volunteers.

Don't let the enthusiasm and drive generated by the exercise slip away. Follow up on recommendations and develop a strategy for their implementation.

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Who is in Charge? The Concept of Emergency Site Management
September 22, 1994.

Critical Incident Stress
November 8, 1994

Risk Assessment for Industry
Fall 1994

Risk Assessment for Municipalities
Fall 1994

*TDG Workshop: If I had my druthers
November 1994

When the Train Leaves the Tracks: Multi-jurisdictional incidents
December 1994

Emergency Preparedness in Alberta Schools
TBA

Scaling the Barriers: Emergency Preparedness for People With Disabilities
January 1995

Emergency Preparedness Partnerships: Private and public sectors working together
February 1995

Emergency Preparedness and the Family
February 1995

Emergency Planning for Industry
March 1995

Emergency Preparedness and the Elderly
TBA

*Speak your mind. Attend the Transportation of Dangerous Goods: If I had my druthers workshop in November. We will introduce you to the newly proposed dangerous goods regulations before dividing you into working groups where you can discuss, with fellow colleagues, what impact the proposed regulations would have on the handling, offering and transporting of dangerous goods in Alberta. A spokesperson from each group will then report the group's recommendations in a plenary session. Results of the workshop will form the basis of Alberta's position on the proposed amendments.

To be placed on the mailing list for the series contact:

Alberta Public Safety Services Training School
10420 - 157 St.,
Edmonton, AB T5P 2V5
Phone: (403) 422-0346
Fax: (403) 427-7782
In Alberta, to be connected toll-free call 310-0000.

A blueprint for success in disaster simulation

APSS Exercise Design

Barry Cooper
Training Officer, APSS

Disaster simulation exercises are essential. However, exercise development can be full of pitfalls. Success depends on identifying potential hurdles in advance – and taking steps to avoid them. The APSS Exercise Design course can help you avoid the following mistakes and problems. The course can help make your disaster exercises a success.

Too much too soon

Disaster exercise programs can be too much – too soon. The planner fails to run any smaller-scale exercises. Instead, he or she starts with the big one – a major (field) exercise. There are burning trains, crumpled buses, collapsed buildings and hundreds of casualties.

Too much too soon almost guarantees that participants are unprepared and ineffective. When the planner announces the next exercise, participants are reluctant to take part.

As an antidote, Exercise Design emphasizes the need for a year-round program. Start with orientations and discussions, then move to minor table-top and communication exercises with actual people and physical resources.

Testing people

Another common mistake is using simulation exercises to test people in their emergency roles. This often creates extra stress. Participants become defensive and pre-occupied with covering their tracks. At the post-exercise debriefing session, embarrassed players hear their failures publicly announced. Typically, the embarrassed participants refuse to take part in future exercises.

Exercise Design shows planners how to structure exercises and feedback sessions so participants learn from the experience. The message is clear: exercises should test management, coordination and communication systems – not people.

Realism

The need for realism can challenge any exercise designer. Exercise Design offers tips on how to create special effects for major (field) exercises. It also provides suggestions for scenarios. It shows how to create geographical validity and how to sequence events. It suggests messages and simulations that can give participants the feeling of actually being there.

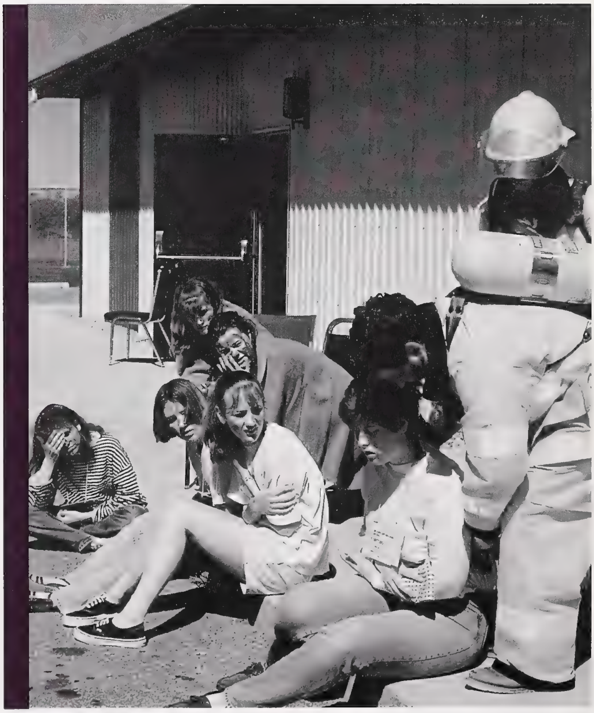
Drafting a script

Exercise scripts should challenge participants without solving problems for them. Many exercise designers, including experienced ones, try to create an exercise storyline. They treat participants as actors in a play and try to direct all their actions. This simply won't work.

Exercise Design shows how to use messages and other cues to lure players to decision points. Then the exercise designer learns how to pull back. Players can make their own decisions and cope with the consequences. After this free play (which might take many directions), the designer learns to steer participants back to the scripted action. Participants have more opportunities for communication, analysis, decision-making and coordination.

Overall, Exercise Design covers all the essentials a director of disaster services or emergency coordinator needs to know to run effective exercises. As well, APSS is continually updating the course to include timely topics, such as using computer software to design exercises.

Want to learn all about it? Register for the November 14 to 17 ('94) session of APSS's Exercise Design by calling Barry at (403) 422-0346.



Peggy Berndt

Three municipalities, one police detachment, three fire departments, two hospitals, two ambulance services and a lot of injured high school students were used in "Exercise Strome". The unique exercise was designed to test emergency and mass casualty response plans as well as mutual aid plans for the towns of Daysland and Killam and the Village of Strome.

Recent acquisitions in the library:

A selected bibliography of materials available from the Alberta Public Safety Services Library

Compiled by Teresa Richey, APSS Librarian

To borrow the material listed, send an interlibrary loan form to Alberta Public Safety Services (APSS), 10320-146 Street, Edmonton, Alberta, Canada, T5N 3A2. Materials located in our Coordination and Information Centre (CIC), at our Training School (TRNG), the Government Emergency Operations Centre (GEOC) or our Reference Collection (REF) cannot be borrowed but can be referred to in the Library.

Guidelines for investigating chemical process incidents. Center for Chemical Process Safety. New York : American Institute of Chemical Engineers, 1992. 347 p.
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Guiding principles for chemical accident prevention, preparedness and response. OECD Environment Directorate. Paris: Organization for Economic Co-operation and Development, (Environment monograph 51). 1992. 123 p.
TP 155.5 .G841 1992, MAIN LIBRARY

Hazards and the communication of risk. Edited by John Handmer and Edmund Penning-Roswell. Aldershot, Eng. : Gower Technical, 1990. 335 p.
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Human factors in process operations. Edited by Robert C. Mill. Rugby, Eng. : Institution of Chemical Engineers, 1992. 107 p.
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Minimizing the risk of wildfire: a symposium to address wildfire problems in the wildland/urban interface. Compiled by Kelvin Hirsch. Edmonton : Partners in Protection, 1992. 136 p.
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Pauchant, Thierry C. and Ian I. Mitroff. *Transforming the crisis-prone organization: preventing individual, organizational and environmental tragedies.* San Francisco : Jossey-Bass, 1992. 255 p.
HD 49 .P38 1992, MAIN LIBRARY

Reducing the impacts of natural hazards: a strategy for the nation. Office of Science and Technology Policy. Subcommittee on Natural Disaster Reduction. [Washington, D.C.] : Committee on Earth and Environmental Sciences, 1992. 88 p.
HV 593 .R421 1992, MAIN LIBRARY

Sorokin, Pitirim A. *Man and society in calamity: the effects of war, revolution, famine, pestilence upon human mind, behavior, social organization and cultural life.* Westport, Conn. : Greenwood Press, 1968. 352 p.
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[Taylor, Peter]. *The Hillsborough stadium disaster 15 April 1989: the final report.* London : Home Office, 1990. 109 p.
HM 299 .T39 1990, MAIN LIBRARY

Transportation of hazardous materials: issues in law social science, and engineering. Edited by Leon N. Moses and Dan Lindstrom. Boston: Kluwer, 1993. 323 p.
HE 199.5 .D3 T717 1993, MAIN LIBRARY

Spread the word.

Advertise in the October Issue of *Insight.*

Do you have a business card, event, course, service or product you want the readers of *Insight* to know about? For a small fee, *Insight* will help you spread the word. Deadline for submitting ads in the October issue is August 31, 1994.

Call Cheryl Edwards or Peggy Berndt at (403) 427-2772 for details.
In Alberta, to be connected toll-free dial 310-0000.

Product Profiles on Sale

Since March 1989, each edition of *Insight* has contained a description of a dangerous good transported regularly on Alberta highways. We call this feature our Product Profile.

To meet reader demand, we have gathered all Product Profiles into a full-color book available for $25.00 (Canadian), gst included. To order a set, fill out the form in this edition of *Insight* or call (403) 451-7120 and ask for a brochure.

Every year we will reprint the year's Product Profiles and send them to you so that you can update your book.

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Permit Fees Introduced

To allow for flexibility within the Transportation of Dangerous Goods (TDG) Regulations, Alberta Public Safety Services (APSS) can issue a permit of equivalent level of safety to clients when regulatory amendments are in review or full compliance of the Regulations is difficult to achieve. In all cases, permits are issued so clients can streamline operations without jeopardizing public safety. The number of permits now issued should reduce significantly once the new TDG Regulations are passed in 1995.

As of January 1, 1995 APSS will introduce a fee structure for permits. A written application detailing the quantity and type of dangerous good being transported, the type of vehicle being used to transport, the reason why the permit is required and if possible, the classification and UN number must be submitted to the Risk Analysis Branch at APSS. Before a permit can be issued, a dangerous goods inspector will consult with the applicant to ensure the request is practical. Please allow two weeks for processing.

Proposed Fee Structure

Fleet Size	Cost per permit
1 - 10 units	$50.00
11 - 50 units	$100.00
51 - 100 units	$500.00
Association 101+ units	$1,000.00

Example:
A company operating 20 tankers hauling oilfield chemicals will be charged $100.00 for a permit.

For more information call John Harpin at (403) 451-7131.
In Alberta, to be connected toll-

Product Profile

Toluene diisocyanate

Toluene diisocyanate is the building block of many household products. Toluene diisocyanate is used to manufacture polyurethane foams for furniture, insulation and packaging. It is also used to make elastomers for adhesives, saran wrap and film. Coatings used on leather, wire and linings can also be made from toluene diisocyanate. Another everyday product, nylon, uses toluene diisocyanate as a cross-linking agent.

Toluene diisocyanate is a colorless to pale-yellow liquid with a sharp pungent odour. It's made by reacting 2,4-diaminotoluene with phosgene gas. The resulting liquid is then purified to remove tars. Because of its chemical structure, toluene diisocyanate (TDI) has several derivatives with different characteristics. They are toluene-1,3-diisocyanate; toluene-2,4-diisocyanate; and toluene-2,6-diisocyanate.

Commercially, toluene diisocyanate comes in a mixture of 100 per cent 2,4 TDI, or 80 per cent and 65 per cent 2,4-TDI with the balance of 2,6-TDI. The 80 per cent 2,4-TDI + 20 per cent 2,6-TDI commercial grade accounts for 95 per cent of current industrial uses. Because it is so widely used, this mixture is the basis for most available physical data.

Toluene diisocyanate is slightly heavier than water. Its specific gravity is 1.22 at 25 degree C. Its vapour is much heavier than air. Toluene diisocyanate's actual vapour density is 6. Its flash point is 132 degree C, its boiling point 250 degree C. The explosive limits are from 0.9 per cent to 9.5 per cent at 100 degree C.

Toluene diisocyanate is incompatible with a number of chemicals, including ammonia, amines, alcohol and caustics. If you expose it to sodium hydroxide, acyl chlorides and tert-amine compounds, hazardous polymerization occurs.

Toluene diisocyanate is a weak poison to ingest but a very toxic substance to inhale. Its toxicity data is Rat, Oral LD50 5800 mg/kg and Rat, Inhalation LC50 14 ppm/4 hour. A very small amount of vapour can severely irritate the respiratory system. According to reports, subjects who inhaled 300 parts per trillion eight hours a day for five days developed lung and thoracic problems.

Toluene diisocyanate is now linked to meat-wrapper's asthma, the occupational asthma among grocers. The product is an additive in polyvinyl chloride film used to wrap meat. Workers are exposed to chemical fumes during the sealing process. Grocers and other meat packers touch the film to a hot wire. As the film melts, creating a seal, toluene diisocyanate vapour is released. The vapour becomes a hypersensitive agent in developing the asthma.

Toluene diisocyanate is a confirmed carcinogen, a suspected agent causing thrombocytopenia (low blood platelet count) and a severe skin-eye irritant. Direct skin contact may cause redness, swelling, blistering and allergic reaction.

Store toluene diisocyanate in a closed container in a cool, dry, well-ventilated place. Keep it away from heat, ignition source and direct sunlight. Ultra-violet light will cause the product to yellow. Do not use polyethylene containers: the toluene diisocyanate absorbs water through the plastic. Instead, store it in a tank blanketed with nitrogen or dry air.

Toluene diisocyanate is slightly flammable and has a low-fire risk. However, we often store and transport it with other more flammable organic liquids. For that reason, it can still be dangerous during a fire. In a toluene diisocyanate fire, use dry chemical or carbon dioxide—not water. Toluene diisocyanate will dissolve in ether and acetone. With water, it reacts violently to release heat and carbon dioxide.

In toluene diisocyanate spills or leaks, isolate and ventilate the immediate area. Extinguish all ignition sources and evacuate all unnecessary personnel. Stop the discharge only if safe to do so. Because of the chemical's toxic nature, all cleanup personnel must protect themselves against inhalation and eye or skin contact. Use non-combustible materials such as earth, sand and vermiculite to absorb the spill. Consult medical professionals in any case of toluene diisocyanate exposure.

The *Transportation of Dangerous Goods Regulations* classify toluene diisocyanate as a Class 6.1—a poisonous substance. It has a Product Identification Number (PIN) of UN2078 and a Packing Group II. Special Provision 102 says, when shipping by rail, you must mark shipping documents, accompanying carload, containerload or trailer-load quantities, with the words "SPECIAL COMMODITY." The Regulations prohibit shipping toluene diisocyanate as a consumer commodity or in limited quantities. Shippers, handlers and transporters must have appropriate TDG training, documentation and safety marks.

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Calling all Subscribers!

What news can you use?

Insight has recently welcomed many new readers. We like to keep our subscribers happy so we'd like to know what topics and issues interest you. How can we meet your information needs? We want this magazine to be useful. Phone us, fax us or write us.

We have also recently invited representatives from industry and local government to join our editorial board. The new board will be better equipped to target your needs and produce a product that has "news you can use."

Beginning with the next issue, more emphasis will be placed on the transportation of dangerous goods. Articles on both dangerous goods and emergency preparedness will be featured in every issue of *Insight* so that each issue will have something for everyone.

YOUR INVOICE IS DUE

It's time to pay your invoice. If payment has not been received before the next issue is distributed, your name will be deleted from the mailing list and you will not receive any further issues of *Insight*.

Insight would like to thank our subscribers who have already forwarded payment.

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